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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/590,236

06/08/2007

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10191/4736

6976

26646 7590 04/21/2009
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EXAMINER

KAPLAN, HAL IRA

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

04/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/590,236 | Applicant(s) LABITZKE ET AL. | |
| | Examiner Hal I. Kaplan | Art Unit 2836 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-17 and 21-27 is/are rejected.
- 7) ☒ Claim(s) 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/21/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: Page 1, line 7, "electricelectrical consumers of the vehicle electricelectrical system" should be "electrical consumers of the vehicle electrical system". Page 1, line 9, "electricelectricity" should be "electricity". Page 1, line 23, "electricelectrical" should be "electrical". Page 1, line 24, "electricelectrical" should be "electrical". Page 1, line 28, "electricelectrical" should be "electrical". Page 1, line 29, "electricelectrical" should be "electrical". Page 1, line 1, "electricelectrical" should be "electrical". Page 1, line 6, "electricelectrical" should be "electrical". Page 4, line 24, "electricelectrical" should be "electrical". Page 4, line 32, "electricelectrical" should be "electrical". Page 5, line 2, "electricelectrical" should be "electrical". Page 5, line 21, "electricelectrical" should be "electrical". Page 5, line 22, "U1 = -12V" should be "U1 = 12V". Page 5, lines 21-23, "having ... each in nominal voltage" is unclear. It is also unclear whether U1 = 12V or 14V and whether U2 = 36V or 42V. Page 5, line 29, "Wi" should be "Ri". Page 6, lines 2-6 are unclear.

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the charge storage device separate from the battery of claim 13 must be shown or the feature(s) canceled from the claim(s). It appears from the specification that the charge storage device is the battery (see page 4, lines 14-17 and Figures 1-5). For examination purposes, it has been assumed that the charge storage device of claim 13 is the battery; however, if the charge storage device is a separate device from the battery, then the charge storage device must be shown or canceled from the claims. No new matter should be entered.

4. The drawings are objected to because of the following informalities: "B" in Figure 3 should be "B1" (see page 6, line 12).

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: IE in Figure 1 (see page 5, lines 9 and 13) and UG1 and UG2 in Figure 2 (see page 6, lines 2-6).

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: IE1 in Figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

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even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

7. Claims 1, 19, and 24 are objected to because of the following informalities: Claim 1, line 4, "the generator" should be "the first generator". Claim 19, lines 2-3, "and in a range of one of 12-14 volts and 36-42 volts" should be "and the first generator voltage is in a range of 12-14 volts and the second generator voltage is in a range of 36-42 volts". Claim 24, line 2, "a second generator" lacks proper antecedent basis because no first generator is recited. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 23 recites the limitations "an additional charge storage device connectable to the excitation winding of the second generator" and "a connection being established after actuation of the ignition switch and maintained until the second generator has started and is supplying an output voltage". The claimed connection is inconsistent with

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the specification (see page 7, lines 6-8) and Figure 5, which indicate and illustrate that in the embodiment comprising an additional charge storage device (ZB), there is no connection between the two voltage systems and no connection between the excitation winding (E2) of the second generator (G2) and the first battery (B1).

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by the US patent of Mashino et al. (5,097,165).

As to claim 24, Mashino discloses a method for power supply in a power supply device including a connecting device (17) for connecting an excitation winding (104) of a second generator (105) to a charge storage device (12) for generating an excitation current in the excitation winding (104) of the second generator (105), the connecting device (17) including a switch, the method comprising: closing the switch at "ignition on" and opening the switch again after ramp up of the second generator (105), so that a connection is kept conductive until the second generator (105) has started and is generating an output voltage (see column 4, lines 11-21 and 29-43, and Figure 3).

As to claim 25, power is supplied in a vehicle electrical system (see column 1, lines 58-64).

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13. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by the US patent of Kessler (3,069,555).

As to claim 26, Kessler discloses a method for power supply in a power supply device, comprising keeping a switch (6) closed and operating a first generator (1) and a second generator (2) in parallel for joint supply of power to one of first and second voltage systems (5) (see column 2, lines 24-39 and Figure 1).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the US patent of Mashino et al. (5,097,165) ('165) in view of the US patent of Mashino et al. (4,788,486) ('486).

As to claim 13, Mashino '165 discloses a power supply device comprising: a first voltage system including a first generator (115), to which a first voltage regulator (118) is assigned; a battery (12) connected to the first generator (115) and consumers (14) connected to the battery (12); a second voltage system including a second generator (105), to which a second voltage regulator (108) is assigned, as well as consumers (13), the second voltage regulator (108) regulating an excitation current flowing through an excitation winding (104) of the second generator (105); and a connecting device (17) for connecting the excitation winding (104) of the second generator (105) to the battery/charge storage device (12) for generating the excitation current in the excitation winding (104) of the second generator (105) (see column 3, lines 30-46 and 57-60; column 3, line 68 - column 4, line 22, and Figure 3). Mashino '165 does not disclose switchable consumers connected to the first and second generators.

Mashino '486 discloses a generator (1) driven by a vehicle engine, a battery (2) connected to the generator (1), and consumers (6) switchable to the battery (see column 2, lines 57-60). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified Mashino '165 by making the consumers

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switchable, in order to allow the consumers to be independently turned on and off by a driver.

As to claim 14, the power supply device of Mashino '165 is in a vehicle electrical system (see column 1, lines 58-64).

As to claim 15, the connecting device (17) of Mashino '165 establishes a conducting connection between the excitation winding (104) of the second generator (105) and the battery/charge storage device (12) (see column 4, lines 11-21).

As to claim 16, the connecting device (17) of Mashino '165 establishes a conducting connection after actuation of the ignition switch (15), at least until starting of the second generator (see column 4, lines 11-21 and 29-43).

18. Claims 17, 21-22, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mashino '165 in view of Mashino '486 as applied to claim 13 above, and further in view of the US patent of Kessler (3,069,555).

As to claim 17, Mashino '165 in view of Mashino '486 disclose all of the claimed features, as set forth above, except for the connecting device being situated between the excitation winding of the second generator and the battery. Kessler discloses first (1) and second (2) generators, wherein the second generator (2) is connected to the first generator (1) and first consumers (5) via a switch (6) (see column 2, lines 24-39 and Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified Mashino '165 in view of Mashino '486 by connecting the relay (17) between the second generator (105) and the first generator (115) as taught by Kessler (and thus between the second generator (105) and the battery (12)),

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in order to be able to isolate the second generator when there is a fault in the second generator, or when the second generator is not needed.

As to claim 21, the connecting device (17) of Mashino '165 in view of Mashino '486 includes a relay (17) (see column 4, lines 11-21 and 40-43).

As to claim 22, the connecting device (17) includes a sense path (connecting coil 17b and associated resistor to terminal L3) (see Figure 3).

As to claim 26, Kessler discloses a switch (6) between first and second generators (1,2), wherein the switch (6) is kept closed and the first and second generators (1,2) are operated in parallel for joint supply of power to a first or second voltage system (5) (see column 2, lines 24-39 and Figure 1).

As to claim 27, Mashino '165 discloses power supplied to a vehicle electrical system (see column 1, lines 58-64).

Allowable Subject Matter

19. Claims 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. Claim 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

21. The following is a statement of reasons for the indication of allowable subject matter:

Claims 18-19 contain allowable subject matter because none of the prior art of

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record discloses or suggests the claimed connecting device including a bidirectional d.c./d.c. voltage transformer, in combination with the remaining claimed features.

Claim 20 contains allowable subject matter because none of the prior art of record discloses or suggests the claimed connecting device including a diode and a resistor, in combination with the remaining claimed features.

Claim 23 contains allowable subject matter because none of the prior art of record discloses or suggests the claimed additional charge storage device, in combination with the remaining claimed features.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

hik
/Albert W Paladini/
Primary Examiner, Art Unit 2836

4/17/09